

deschi of Padua, Brush and Johnson of Yale, and Winchell of Ann Arbor; Messrs. Alex. Agassiz, and Shaler of Cambridge; Dr. C. M. Wetherill; Dr. Kirkbride, Mr. Barnes, Mr. Lea; Dr. Mackall, of Washington, and Mr. Blair, of Pittsburg; and the Chicago Academy of Sciences.

The death of G. Forchhammer, of Copenhagen, in December last, was announced by the Secretary.

The death of Dr. Jared Sparks, of Boston, on the 14th inst., aged 76, was announced by Mr. Fraley.

A paper was presented for publication in the Transactions entitled the Hydrology of the St. Lawrence, by Thomas E. Blackwell, Esq., and referred to a committee consisting of Mr. Trautwine, Mr. Lesley, and Mr. Cresson.

Mr. Levi W. Groff, of Bareville, Lancaster County, Pa. (present by invitation), exhibited a watch, on the back of which was engraven, Ben. Franklin, 1776.

Dr. Wilcocks spoke of the present appearance of the zodiacal light.

Pending nominations, Nos. 541, 547, 548, and new nomination, No. 547, were read.

And the Society was then adjourned.

Stated Meeting, April 6, 1866.

Present, nineteen members.

Mr. PEALE in the Chair.

A letter accepting membership was received from Dr. Ferdinand Keller, dated Zurich, February 19, 1866.

A photograph of C. D. Arfwedson was received from Dr. Wood.

Letters of invoice were received from the Royal Society of Victoria, dated Melbourne, June 12th, 1865; the Physical Society, Berlin, December 4th; the Royal Saxon Society, Leipsic, September 2d and 30th; the Vaudois Society, Lausanne, September 1st; the Zoological Society, Frankfurt am Main, January 1st, 1866; the American Oriental Society,

New Haven, April 2d, 1866, and the American Pharmaceutical Association, Philadelphia, March 1st, 1866.

A letter requesting the supply of deficiencies was received from the Royal Society of Edinburgh, November 1st, 1865.

A letter establishing correspondence was received from the Maine Historical Society, March 20th, 1866.

A letter requesting exchanges was received from the Museum of Comparative Zoology at Cambridge, March 27th, 1866. On motion, the request was referred to the Publication Committee, with power to take order.

Donations for the Library were received from the Economical Society, Königsberg; Physical and Geological Societies, Berlin; Royal Saxon Society; Geological Institute, Vienna; Societies at Göttingen, Wiesbaden, Frankfurt, St. Gallen, and Lausanne; Frederick Müller, at Amsterdam; the Imperial Observatory at Paris; the Royal Institution of Great Britain and Ireland; the Geographical, Chemical, and Zoological Societies, and Society of Arts, at London; the Royal Observatory, Greenwich; Royal Society, Edinburgh; Royal Irish Academy; Quarterly Journal of Science, Dublin; Royal Society of Victoria, at Melbourne; the Essex Institute and Boston Society, New Hampshire; Public Library at New Bedford; American Oriental Society, Bureau of Mines, New York; Franklin Institute, Mercantile Library Company, and American Pharmaceutical Society, at Philadelphia; Library Associations at Cincinnati and San Francisco, and the Coast Survey Office at Washington.

The Committee on Mr. Blackwell's memoir, entitled "The Hydrology of the St. Lawrence," made their report, which was adopted, and the memoir ordered to be printed in the Transactions.

A paper was offered for publication in the Proceedings, entitled "Sophocles," by Ch. W. Zaremba, M.D., St. Joseph, Michigan, which, on motion, was referred to the Secretaries with power to act.

A map was offered for publication in the Transactions, entitled "A map to illustrate five topographical types of earth-surface between Cincinnati and the sea," by J. P. Lesley,

which, on motion, was referred to a committee consisting of Professor Kendall, Dr. Ruschenberger, and Dr. Hayden.

Mr. T. P. James called the attention of the Society to the second edition of the "*Musci Boreali-Americani sive specimina exsiccata muscorum in Americae Rebuspublicis Fœderatis detectorum, conjunctis studiis W. S. Sullivant et S. Lesquereux*," which he took pleasure in exhibiting as the labor of fellow members, remarking that the set comprised 536 species and varieties, together with 123 duplicate packets, displaying a rare collection of the Bryological flora of North America, including of course the California mosses described by Mr. Lesquereux, and published in the thirteenth volume of the Transactions of the Society, exquisitely put up; the merit of which, he said, did not consist solely in the beauty of the specimens, but in the accuracy of the nomenclature, emanating as they do, from a source that is authority on this subject.

The time consumed in collecting and preparing so many plants, all carefully, critically, and microscopically investigated, is illy requited by the price fixed for disposal, viz., thirty-five dollars in gold.

Mr. James embraced the opportunity to show two important works on the same subject recently published by Mr. Sullivant,—one in elephant folio, accurately describing the Musci of the Wilkes' U. S. Exploring Expedition, and elaborately depicting fifty-six new species on twenty-six plates, each highly magnified, and with complete analysis. The other, the "*Icones muscorum*," in royal octavo, describing and figuring mosses peculiar to North America, not heretofore figured, embraced on 129 copper-plate engravings, in like manner produced in the highest state of the art of engraving.

Mr. James thought it a fitting occasion thus to present and allude to the rapid strides that science was making in this direction, owing almost solely to the energy of those two gentlemen, who have devoted so much valuable time, skill, and means to its advancement.

Mr. Peale exhibited permanent soap-bubbles, made from oleate of soda and glycerine.

Mr. Eli K. Price read the following obituary notice:

OSWALD THOMPSON was born in Philadelphia, on the 17th day of December, 1809. His parents were highly respectable. His father, John Wallace Thompson, came here early in life from the north of Ireland, and pursued a mercantile business successfully in the southern part of the city. He took an active interest in public affairs, was a member of city councils, conservative in his political opinions, and enjoyed through life a reputation for probity. To his son he afforded good opportunities of education; sent him to Willy and Ingell's school, and, at the age of fourteen years, to Princeton College. The son profited well by these advantages, and graduated in 1828, with the first honor.

Oswald Thompson entered the office of the Hon. Joseph R. Ingersoll, on the 26th day of March, 1829, who was then engaged in a large practice, having then, as before and since, numerous students, who have become distinguished at the bar and on the bench. Here young Thompson formed valuable friendships which he never lost. He was admitted to the Philadelphia bar on the 27th of March, 1832. His success in practice was early, respectable, and remunerative. His clear judgment, ample learning, and reliable integrity, secured him fast friends and clients; some of them of wealth and influence, who were wise enough to appoint him executor of their wills. It cannot be doubted, had he remained at the bar, that he would have been the recipient of professional business and trusts sufficient fully to occupy his time, and to secure for him independence and wealth.

But Mr. Thompson was not a stranger to the impulses of an honorable ambition, and the desire to be usefully distinguished. He listened to the solicitation of friends to permit his name to be offered to the public as a candidate for President Judge of the Court of Common Pleas of the County of Philadelphia; was nominated and elected to that office; and with his legal friends, William D. Kelley and Joseph Allison, as his associates, took his seat in that Court on the 1st day of December, 1851. It was an office of high importance and responsibility, demanding for the fulfilment of its duties not only great and diversified professional learning, but a fearless independence and courage. The arbiter between human life and death must be a firm man, and should be eminently good; for he must decide upon that life with the fearful responsibility that he shall never sacrifice the innocent, nor suffer the guilty to escape to repeat his murders; and must judge as he knows he must be adjudged before a higher tribunal.

Judge Thompson possessed the requisite personal qualities demanded by his high position, and these never failed him until his health and body sank beneath the weight of his burdens.

He took his seat subject to the disadvantage of following a predecessor of eminent ability, great learning, and laborious study, whose decisions fill several volumes belonging to the profession, and are characterized by great research and power. Judge Thompson was subject to the further disadvantage of having to transact an increased amount of judicial business, a very large proportion of which necessarily consumed much time without requiring the application of much learning, and, therefore, affording little opportunity to exhibit, or incentive to extend, legal research and learning; while the time for elaborating opinions in important cases was curtailed by its consumption in the despatch of the inferior business of the Quarter Sessions and Common Pleas.

The jurisdictions administered by the Judges elected to the Common Pleas of the County of Philadelphia are of the most varied character, and in the aggregate surpass in their diversity and also in their minuteness and magnitude, those of any other court in our State, and probably those of any in the United States. Those Judges try and decide every variety of civil causes, and every grade of criminal offences. They hear the appeals from the Magistrates, involving sums from a few dollars up to a hundred, and have an original jurisdiction up to five hundred dollars. They decide landlord and tenant cases of all amounts; they decide upon all cases of insolvency and assignments, honest or fraudulent, of the poorest insolvent, and the largest corporation of millions of capital as well; and upon the forfeiture of bank charters, and upon the validity of other charters and corporate proceedings. They decide upon the estates of all decedents and minors, real and personal, from the smallest to the largest counted by millions, upon the validity of wills, and their interpretation; decide when and what estates shall be sold for the payment of debts, or to meet the wants of families; hold all executors, administrators, guardians and trustees to account, and upon all differences between them and those interested, and who are entitled by will or statute, as legatees, devisees, distributees and heirs. They are to judge when estates fettered by settlements and trusts, or belonging to persons under disability, may be sold and converted into money, or may be improved for the advantage of those interested and their greater productiveness. By the writ of *habeas corpus* they relieve those unlawfully restrained of their liberty; they protect infants, and decide

which of estranged parents shall have their custody, as the best welfare of the child may require. They decide upon the validity of marriages, and for cause dissolve the bonds of matrimony. They must decide upon the validity of the local elections; review the ballot-boxes, declare which candidate is entitled to the office; and in the midst of high political excitement must forget that they know any preference of party, and decide fearless of threats and impervious to flattery. They must decide upon all plans presented by the Survey department of the City for the extension of the City plan; and upon the opening, narrowing, or vacating all streets, and the assessment of all damages for all property taken by the law of eminent domain for streets, railroads, and parks, that justice shall be done between the owners and the public. They appoint the revisors of the taxes, and must hear appeals as to the liability of property to taxation, and the proper valuation thereof. They participate in the appointment of the Prison Inspectors and Guardians of the Poor and Board of Health; and have a supervisory visitatorial power over the Prisons, Almshouse, and Houses of Refuge. As a Court of Quarter Sessions the same judges try all the lower grades of crime, and commit children to the Houses of Refuge, and, as a high Court of Oyer and Terminer, they try all felonies and capital cases. Here then is the great central tribunal where all interests and the peace and security of this community are protected and maintained; whose conservative power all, at all times, feel, though many may never enter a court; but there many times through life their personal interests may be deeply involved, and there, as certainly as death, shall come their estates for legal transmission and adjudication. This summary enumeration of subjects of adjudication is now and here made, because the public should understand what is done for them by the Courts, and because it is a survey necessary to complete the great lesson of justice to be taught us all by the judicial life and the premature death of Judge Thompson.

It is not here that we should enter upon a criticism of the many judicial decisions made by Judge Thompson. The members of the legal profession will find these, so far as written and published, in the several volumes of the "Philadelphia Reports," for the past fourteen years. It will suffice here to state the characteristics of those opinions. They partake of the character of their author. He who was ever calm, self-possessed, patient, seeming to sit the impassive impersonation of justice; he who was conscientiously faithful, truthful, laborious and learned; he who loved justice, hated iniquity, yet had

a heart tempered by mercy, necessarily made his investigations carefully, stated his facts truthfully and clearly, and formed his judgment cautiously; applied sound legal principles pertinently, and drew his conclusions accurately and with a convincing logic. Beyond these requisites, imposed upon himself as indispensable, he seldom elaborated; for the exigencies of the public business which ever pressed upon him did not permit long legal disquisitions. These sensible and clear opinions will long and often be cited by counsel and judges, and hold the memory of Judge Thompson in respect and honor.

Judge Thompson made not his elevated position available to other distinctions. He modestly toiled on in the performance of his judicial duties, and found these more than adequate to task ordinary human endurance. Yet was he not insensible to social enjoyments, and freely mingled with his fellow citizens on social occasions; and was not abstinent from social worship, nor negligent of the claims of his church. He was elected a member of the Historical Society; made a Trustee of the General Assembly of the Presbyterian Church; a Trustee of the University of Pennsylvania; was chosen a member of The American Philosophical Society; and received the degree of Doctor of Laws from the Jefferson College.

In bestowing the patronage of his court Judge Thompson was liberally judicious. His appointments of Masters, Auditors, and Examiners were not confined to a few favorites, but extended generally among the competent junior members of the bar, and to those advanced in the profession when the occasion demanded mature experience and judgment. He was willing to listen to the suggestion of counsel, and often invited it, as to the nature of the questions to arise, and the qualifications needed in the appointee; and probably never declined a nomination mutually agreed upon by the opposing counsel. It was his pleasure to encourage modest merit, to assist those who needed assistance, and many young men owe to his kindness a debt of gratitude. But whosoever the appointee no feeling of favoritism could give his report the slightest immunity against a fair exception and reversal.

Judge Thompson's junior brethren on the bench have borne for his character a warm and affectionate tribute of regard; and they testify to traits of character perceptible to the bar, but more fully manifested to those who were in constant association and consultation with him. One generous characteristic obvious to us all was, that he sought not to arrogate to himself the important business of the Court in a manner to overshadow his brethren; but in free and full

interchange of opinion imparted to them all that he knew, essential to a just and enlightened decision, caring more for the faithful administration of justice and the credit of the Court, than for any personal distinction; and then assigned to them their full share of the cases requiring legal research and written opinion. He was ample in learning, penetrating, and full of resource in grappling with difficult cases, but very cautious, fearing to err; carefully examined the facts and authorities, and with accurate precision considered and applied the proper ruling principles. If sustained by the Supreme Court he was happy for this proof that he had committed no error; if reversed, yet was he happy that no one had suffered by his mistake. His love of justice surpassed his pride of opinion; he was most prompt to correct himself; and upon discovery that the innocent had suffered by false evidence, he was instant to repair the wrong. So careful and cautious was he, that he was well justified in a very firm reliance upon a deliberately formed opinion; and with that confidence fear of consequences vanished; yet so conscientious was he that he was still open to conviction from the sensitive apprehension of doing wrong; and reinvestigation on the suggestion of his colleagues, was sometimes followed by a reversal of himself before his first impressions, and even his formed opinions, had passed into irrevocable judgment.

His brethren and friends also testify to other qualities of the mind and heart, not so obvious to the public, but which serve to complete the character of the man, without impairing the character of the judge. Beneath that calm judicial serenity we beheld, there flowed a current of feeling, which, though it rippled not the surface, was strong in sympathy or indignation, which was sometimes outspoken, as honesty and duty required, in approval or censure. As a companion he was social and genial; as a friend warmly attached and hospitable; with his judicial brethren, sometimes relieving the seriousness of weighty consultation with fitting anecdotes, racy humor, or pungent wit. He had a cultured mind, preserved his classic attainments; added French and Spanish to his Latin and Greek, and kept up with the literature of the times as far as he could without neglecting any public duty. It was among his regrets that he had so much to sacrifice his literary enjoyments. Whatever might be the differences of opinion between himself and friends, these disturbed not their happy intercourse. He was gentle and kind to rich and poor, and wonderfully patient to hear the palliating circumstances narrated by the interceding friends of those whom he was to sentence, or had sentenced, to penal endurance. What

Oswald Thompson was as husband and father I will not dare to delineate, nor venture to intrude upon the hallowed scene of his home, where the wounds yet freshly bleed; but will leave you to form your own high ideal of all that the kind, affectionate, and good husband and father should be, and to assure you, from all I have learned, that that ideal will not surpass the real, of him whom we now most sincerely mourn and honor.

A slight circumstance will indicate the religious and reverential bent and habit of Oswald Thompson's mind. Within the past year, while convalescent, and sojourning at a kind friend's country place, when on Sunday morning some reviews were offered for his amusement, he quietly replied, "I would like something better to-day;" and accepted and read Dr. Barnes' Notes on Isaiah.

But duty compels me here to change the tenor of my remarks, and to ask you and the public to contemplate with me a melancholy phase of the latter years of this eminent and good public servant; that the wrong done to him, to a large extent for want of thought and consideration, may not be repeated and perpetuated upon his judicial contemporaries and successors. By the united testimony of many judges and lawyers, and other witnesses, Judge Thompson has fallen an early victim to overwork, too close confinement in a bad atmosphere, and that with a compensation wholly inadequate; if any could compensate so severe a sacrifice as that of health, happiness, and life itself. Yet although from the bitter tears of sorrow shed upon his untimely grave there now grow bitter plants, let us endeavor to make them medicinal for cure to save health and life in others. So a kind Providence intends; from evil he ever educes good; and commissions the bitter to heal and restore.

At the expiration of the term of ten years, for which Judge Thompson was elected, he was again nominated and elected to the same office. It had then been perceived that his constitution had become impaired by excess of labor, by long confinement in the courts, and by breathing the tainted air of the illy-ventilated Quarter Sessions Court-room. He was warned, by solicitous friends, of the peril he was about to incur by a re-election, as no doubt he had been keenly self-warned by his sufferings. But he had no choice, and then declared his purpose to continue to work on while life should last. He had left his practice, and his clients had become satisfied with other counsel; and no one's lost business would return at his bidding, and if that were possible, could not be sustained with impaired health and strength. His salary, consumed in maintaining

and educating his family, had added nothing to his little capital. It was therefore of necessity that he must continue to perform his judicial functions, though well knowing that they would soon terminate his life. Such is the exigency experienced by all Judges who have not secured their independence before taking office. It is a humiliating concession to make, but it is demanded by truth. We must bear the reproach until we apply the remedy. Judge Thompson is but a more signal example of a pervading injustice. Many Judges there are in our State, eminent for learning and ability, of perfect integrity, on whom we must all depend for the protection of all that we have inherited or shall earn, and for all rights we hold most precious, to whom we render no adequate justice, and who have to suffer repentance and take to themselves bitter reproaches, because they have committed the error of having trusted themselves and their families to the justice of their country. That is a sad reproach, indeed, to all who compose the public of the Commonwealth of Pennsylvania.

Let us try a statistical statement between the period of Judge Thompson's judicial life and previous periods, and thence judge whether we have not been greatly unmindful of our duty, by not keeping more consciously awake to the growth of our community and its more than commensurate increase of business for the Courts. Let us do this in reference to our local State Courts, leaving out of view the Supreme Court, which has existed through all those periods, besides formerly, in each year, holding the Court of Oyer and Terminer here, which they have not done in this county for many years, by reason of the increased amount of business devolved upon those Judges.

In 1790, the population of Philadelphia County was 54,391; in 1800, was 81,009; in 1810, was 111,210; and at those periods, our local courts were two, the Common Pleas, with three Judges, one of them learned in the law, and the Mayor's Court, with a Recorder, learned in the law, assisted by the Mayor and Aldermen. The District Court was created in 1811, with three Judges, one of them learned in the law; and since 1821, all of them have been learned in the law. In 1820, our county had population, 137,097; in 1830, had 188,789; in 1840, had 258,037. Our local courts stood without change until 1840, except that in 1834, a second Law Judge was appointed in the Common Pleas, and in 1836, a third Judge, learned in the law, was appointed for that court; and except also that, in 1838, another court, called the Criminal Court of Sessions, was es-

tablished, with three judges, learned in the law. The court last named was, in 1840, superseded by the Court of General Sessions, composed of three Judges, learned in the law; and in 1843 that court was, in turn, abolished, and its jurisdiction restored to the Court of Oyer and Terminer and Quarter Sessions, with the addition of a fourth Judge, learned in the law, for those criminal courts and the Common Pleas; which number was reduced to three in 1851, and so has since remained, during all the judicial life of Judge Thompson. The jurisdiction and powers of the Mayor's Court had been absorbed by the criminal courts established in 1838 and 1843, and were conferred upon the Court of Quarter Sessions in 1843. We have had, since 1851, but the same number of courts that we had in 1811, and in that time have had but six Local Judges, learned in the law. In 1850, the population of our county had risen to 408,762, and in 1860, to 565,529. Counting but the Law Judges of former times as effective for the despatch of business, the two for the average of the populations of 1790, 1800, and 1810, would give, in proportion to population in 1860, fourteen Judges, instead of the six we have. The three Law Judges, from 1811 to 1821, would give, by the same rule, in 1860, thirteen Judges; the five, in 1830, would, in 1860, give fifteen; and there being, in 1840, nine Law Judges for a population of 258,037, these, by the same proportion, would give, in 1860, twenty Local Judges, instead of the six we have. If, then, former numbers had any just relation to the business to be transacted, we have been grievously unjust and oppressive in the amount of the labor we have heaped upon the Judges of the Court of Common Pleas and District Court of the County of Philadelphia. We have alike been unjust to ourselves; for when the Judges are compelled to do more than they have time to do, business cannot be so well done; justice to some extent is sacrificed; and rather than wait the delays necessarily incident to the choked channels of justice, people submit to unjust compromises; they abate their just rights, rather than endure the law's delay.

Can any one imagine a position more painful to a cultivated and sensitive mind than that of Judge Thompson, during the latter years of his life? He had no adequate resources for his family, while his salary was consumed by the necessary current expenses. He labored on with a keen sense of his duties to the public; felt the keener as failing health increased his nervous sensibilities; and determined that none of his labors should fall upon his overtaxed brethren; yet perceiving, from day to day, that his bodily constitution was fast failing

him, and the more rapidly as the mental labor and anxiety were accelerating the work of destruction. As the body yielded to the pressure, the resolved mind, by a more than natural energy, essayed to supply the loss of physical strength. The edges of the diamond were but the faster cutting away its inferior setting. He fell prostrate in insensibility, and the consequent constrained rest, in the course of months, wrought partial recovery. At the commencement of the last autumn's business he resumed his judicial functions, with his wonted clearness of mind and ceaseless industry. The energetic mind seemed then unconscious how much it was transcending the sustaining capacity of the impaired body. Again he fell, but now to rise no more. On his way towards his judicial seat, though medically advised, and by one of his family affectionately entreated, to remain at home, he was again stricken, carried home, and within a few days expired. The frailer body utterly succumbed to the indomitable will. He died January 23d, A. D. 1866. This may now be added to the many proofs of the mind's predominating power over the body; to the evidence that one is immortal, the other mortal, as they part in death. We may add too his to the countless cases of deaths hastened by excess of labor, or trouble, or sorrow. All-conquering labor at last conquers the laborer, and "by sorrow of the heart the spirit is broken."

The writer asks to be pardoned for thus dwelling upon the sad surroundings of the last years of the life of our fellow-member and friend; sad from two causes only, in which the account and accountability are solely between him, as a public servant sacrificed, and that public of which we all are part; for in all else, except more ample fortune, he possessed all that could make a good man happy: for he was happy in the respect and regard of all who knew him; happy in his own good character and conscious rectitude; happy in the love of friends, family and home; happy in the enjoyment of his religious faith and worship, in the love of his God and trust in his Saviour's power and will to save. He was only not happy in that he was oppressed by inordinate public burdens; that he was inadequately compensated, and foresaw how soon he must be separated from those he most loved, leaving them to mourn his loss, without provision made for their accustomed comforts and enjoyments. Saddest thought is this that can rend the loving parental bosom, when looking narrowly upon the final separation. How little did the public know, as they looked upon the pale, but calm, self-possessed Judge, as he sat daily before them, on the judicial seat, what sorrow, what grief, what

agony, were racking his bosom. He was silent; he spoke no word of complaint, though others sometimes did, for him and his brethren. But now the public know all; and though the victim be beyond their reach now to console and do justice to him, let that public make the amend to his judicial survivors. That would have been the greatest wish and consolation to him, next to his own family's comfort, could he have foreseen the fruits of his own death, which we have seen fulfilled; though what has yet been done inadequately fulfils the demands of justice.

The Judges of all our Courts, and the members of the bar and the public, were moved with an unwonted sympathy when they convened to pay the usual tribute of respect to their departed brother and friend. Without previous concert, they had perceived and with one accord spoke of the cause of the calamity they met to deplore, as well as to honor the memory of the dead. The Bar held subsequent meetings, and sent a deputation to the Legislature, to ask that the great wrong should not be longer continued. The Executive, and Attorney-General, and Committees of the Legislature, made friendly responses. Laws have been enacted to add another Judge to the Court of Common Pleas; additions have been made to the salaries of all the legal Judges of the Commonwealth, and the City Councils are building a better Courthouse. So far, all thus done has been well done; but the wrong has not been fully redressed; the measure of justice has not been reached; and in the name of the honored victim, and in the name of the justice and honor of the Commonwealth, more is demanded; yet another Judge; yet fuller recompense. The occasion has directed our attention to the Judges of the Common Pleas especially; but the same justice is due to those in our District Court and Supreme Court, and others, whose labors have been greatly increased by the increase of population and business in our City and State. The observant eye may see other impaired constitutions sitting on judicial seats; impaired in different degrees from excess of labor and confinement; and we wait but the certain consummation of a slower process, to mourn other judicial victims fallen.

It is not that I would make the judicial office one to be sought for profit, that I am earnest. Those who would seek it from such motive would be unfit for it. The fitly-qualified must have higher and better motives, compared with which the desire of wealth, and wealth itself, are ignoble. Neither would I expect to compensate integrity, learning, and great ability, in the measure of their deserving. The deserts of those on the bench always overflow the limit of the fixed

salary. It is only Judges who are never compensated for high qualities, generous labors, and exalted teachings; while members of the bar, and all others who exert high intellectual and moral qualities, in every calling of life, receive the measure of reward as it flows in generous and ever swelling streams. Let the Legislature, if they please, fix the Judge's salary at but the just equivalent of the mere business requirements of duty, which performed, may do little to advance the science of the law or to elevate the tone of public morality; yet will they do better than they have ever done. Do that by but the rule that squares with the justice measured to other labor and service, according to skill and the cost of educational preparation, and that justice must support the Judge and his family reputably while he lives, and leave something to support that family when the Judge is dead. That measure of justice has not been reached; and it is no excuse to us, the public, that the Judges have been generously willing to take office and meet the sacrifice. Though they have even done so by the promptings of an ambition for distinction, it is not our right to take advantage of the generous or even ambitious aspiration. We are yet wrong-doers and oppressors; and we shall never escape this just impeachment, until we make the salaries cover all the proper expenses of the Judge's reputable living, for each year, and add so much thereto as will, at the end of the judicial life, secure a capital, whose interest will meet the moderate wants of the family, when by death bereft of their head and support, they are left pensionless in the world. The judicial office should not be so poorly paid that the rich only can prudently accept it.

It has been the proverb of ages that Republics are ungrateful. It has been the glory of our nation in this most eventful time, to wipe out that reproach, by an exhibition of sacrifices and philanthropy, such as the world had never known, and could not have imagined. All classes of persons, if we had classes, became fused into a universal brotherhood and sisterhood of charity, for the relief and comfort of the defenders of our Government. From men, women and children money flowed as water from numberless rills of mountains and hills, and the swelling streams dispensed countless beneficences. If we had an aristocracy it was melted down by a common sympathy and patriotism; exclusiveness forgot its cold reserve; selfishness ceased to be saving; and wealth and personal service became a common offering to our beloved country in peril. Yet are we in one thing still ungrateful; and worse, for we are unjust. We have public servants set aside to a special service, whom we exclude from all other oppor-

tunity of business and profit; prepared for that service by long labor and expensive education; Judges, intelligent, learned, faithful, patriotic, who serve us alike during all the years of war and peace, precisely in that direction wherein our rights, liberties, and Government are most surely to be protected and maintained. These public servants, in all British and American history, have been the champions of true liberty; of that liberty which consists in the security of all rights; have been statesmen, whose legal policy, wisdom and firmness made them staunchest opponents to that aristocracy which would build up family power, at the expense of the welfare of the body of the people, by fettering estates in perpetuity. In this country of constitutions their powers transcend those of all other judges; for they are the ultimate protectors of the liberties and property of the people against all legislative, executive, and military usurpations. We have Judges of our Courts, who may, perhaps, have listened imprudently to ambitious suggestions of distinction, and thought of the dignity of elevated position, and yet have brought to the discharge of their high and most responsible duties, irreproachable character, ample learning, and exalted talents, who only were unwise in committing themselves and families to the justice of the Commonwealth. Impute this to them as folly, if we will, yet such imputations made by others cannot equal their own often-felt, bitter, self-reproaches; but self-reproaches felt for no wrong of theirs, but only because they had trusted to the public justice, and found it to fail. How tenfold more severe then should be the self-reproaches of that public! The judges in their younger life may have felt the impulses of an honorable ambition; the aspiration to make their lives usefully distinguished. Yet are these the impulses of generous and exalted minds. Without them human nature would be shorn of its chief glory. They may have expected to make sacrifices, and would bravely bear the penalty of their aspirations, receiving little of our sympathy, had they no family to look upon in sympathy for their welfare; and could they cease to think of what shall become of that family, when by the family's greatest calamity, the present inadequate salary must wholly cease, with no fortune provided for them. Whatever the motive or aspiration of the Judge, we, the public, receive full, laborious, generous service, and not justly to requite that service is a wrong, the responsibility of which we cannot shift from ourselves. We let it fall too lightly upon each of us, as it disperses itself upon the millions of our population; but we should make it concentrate again upon our representatives in the legislature, until they shall do the

judiciary justice, and do us, the people, justice; we, who, as well as they, bear the odium of the just impeachment of public ingratitude and injustice.

Could we now and forever redeem our Commonwealth from this impeachment, the too early death of Oswald Thompson, so hard for him, so cruel to his family and friends, will not have been in vain. His life was spent in administering justice; it was sacrificed by his devotion to the duty of pronouncing and executing justice; and it is most fitting, since the great sacrifice has been endured, that his death should achieve a yet further great and enduring justice.

Oswald Thompson lived and died in the Christian faith, worshipping in the Presbyterian Church. He believed in his own immortal being, and all who loved him, alike happy in their faith, have the consolation of a confident assurance of reunion with him in a happier existence. His was that highest philosophy, whose beneficent fruits prove it both good and truthful; whose faith has power to disarm death of terror, and make it a triumphant entrance into endless happiness; the philosophy given to the world by Him who "brought life and immortality to light through the Gospel."

Mr. Chase referred to some interesting views upon subjects involving the relations of cosmical and molecular forces, in Mr. Ferrell's paper, "On an Annual Variation in the Daily Mean Level of the Ocean, and its Cause" (Proc. Amer. Acad. A. & S. vol. vii, pp. 31-36), and in Prof. F. Guthrie's "Speculation concerning the Relation between the Axial Rotation of the Earth, and the Resistance, Elasticity, and Weight of Solar Æther" (Phil. Mag. [4] 31, 210-213).

Mr. Chase also presented a summary of his observations on the comparative visibility of Arago's, Babinet's, and Brewster's neutral points.

In my communication of January 5th, I stated that when Brewster's neutral point is above the horizon, I had frequently determined its position with great ease. My experience was so different from those of Brewster and Babinet, that I commenced on the 6th of March a series of comparative observations upon the three neutral points. The month which has just ended appears to warrant the following conclusions for stations in Philadelphia and its vicinity. The 1st, 2d, and 6th seem to be confirmed by observations elsewhere, while

the 3d, 4th, and 5th, which are, perhaps, dependent partly upon local atmospheric peculiarities, have never, so far as I am aware, hitherto been noticed.

1. Arago's neutral point often assumes a distinctness which is never exhibited by either of the others, merely because the polarized bands in the vicinity of the sun are obscured by the dazzling brilliancy of its rays.

2. For the same reason, Babinet's neutral point is often better defined, in the morning and evening, than Brewster's during the middle of the day.

3. But when Brewster's and Babinet's neutral points are both above the horizon, if the sky is clear, the former is generally *more easily* posited than the latter. This is especially the case at mid-day.

4. On every clear day, and on a large portion of the days which are partially obscured by clouds, the position of each of the neutral points can be determined. Brewster records but two days during five years' observations (Phil. Mag. [4] 30, 124), upon which he saw all the points.

5. Arago's neutral point often rises before Brewster's sets. Under favorable atmospheric conditions the three points are, therefore, sometimes simultaneously visible.

6. Halos and clouds are frequently discernible through the polariscope, which are invisible to the naked eye.

The following abstract embodies some of the results of the month's observations :

Satisfactory observations were made on	25 days.
All the neutral points were seen on	17 "
There were no satisfactory observations on	6 "
" " 39 observations of Arago's neutral point on	23 "
" " 93 " " Babinet's " " "	22 "
" " 59 " " Brewster's " " "	20 "
Arago's neutral point was remarkably distinct on	4 "
Babinet's " " " " " "	10 "
Brewster's " " " " " "	11 "
Arago's was the only one observed on	2 "
Babinet's " " " " " "	1 "
Babinet's and Brewster's the only ones seen on	1 "
Arago's and Babinet's " " " " "	2 "

The three points were simultaneously visible on April 5th, from 4^h 32' to 4^h 42' P. M.

Brewster's neutral point was perceptibly more distinct than Babinet's at fifteen observations, and less distinct at two observations.

I subjoin a few of my notes, which refer to points of special interest: March 8th, 5^h 45', P. M. Near the proper position for Arago's neutral point, the positive and negative polarities coalesce upon clouds, with no intervening space or neutral line.

March 9th, 6^h 25', A. M. Hazy and polarization fluctuating. 10^h 40', A. M. The polariscope showed a brilliant halo around the sun, which I had not before noticed, but which was afterwards barely visible to the naked eye. 12^h 10', P. M. Haze continues. Negative polarity remarkably distinct over the face of the sun, and for several degrees north and south.

March 11th, 3^h 50', P. M. Sky covered with thin clouds. A neutral point in the east, 42° above the horizon, and *more than* 70° from the *anti-solar point*, with reversed polarization, or positive below, and negative above. 5^h 25'. A similar point still observable, but about 5° nearer the horizon.

March 12th, 6^h 30', A. M. Cloudy. Polarization positive from east and west horizon, nearly to zenith. A similar observation was made March 21st, at 6^h P. M.

March 17th, 9^h 15' and 10^h 40' A. M.,* and March 18th, 10^h 30', A. M.† Very clear. Sun so bright that I was unable to detect the negative polarity between Babinet's neutral point and Brewster's, even by screening the eye from the direct light of the sun.

March 19th, 11^h 5', A. M.‡ Halo, visible only through the polariscope. 1^h P. M. Snowing.

March 20th, 5^h 25', P. M. Cloudy. Polarization in horizon everywhere positive.

March 24th to 28th, inclusive. On each of these five successive days Brewster's neutral point was remarkably distinct and beautiful.

April 3d, 5^h 40', P. M. Cloudy in west, and polarization positive from zenith to horizon.

Strong reflection sometimes changes the character of a comparatively weak polarization, from positive to negative, or *vice versâ*. A fainter reflection, by showing whether the bands are interrupted or continuous, often aids in determining the character of the polarization.

The increased refraction of a piece of glass, interposed between

* On steamboat in Raritan Bay.

† At Eagleswood, near Perth Amboy.

‡ In New York.

the polariscope and the sky, will frequently show a neutral point which is otherwise invisible.

The normal polarity is often reversed by a stratum of clouds of uniform thickness, especially within the solar primary lemniscate.

Pending nominations 541, 547, 548, 549, were read.

On motion of Mr. Fraley, the subject of Dr. Genth's conditional donation of ten volumes of Leonhard & Bronn's *Jahrbuch für Mineralogie 1840-1851*, was referred to the Library Committee with power to act.

On motion of the Librarian it was resolved that the Secretaries be authorized to subscribe for the *Bulletin International de l'Observatoire Impérial de Paris*.

And the Society was adjourned.

Stated Meeting, April 20, 1866.

Present, twenty-three members.

DR. WOOD, President, in the Chair.

A letter of envoi was received from the Geological Bureau of Sweden, dated Stockholm, November 6th, 1865.

Donations for the Library were received from the Geological Survey of Sweden, the Geographical Societies of France, the Royal Astronomical and Meteorological Societies of London, the Bombay Branch of the Royal Asiatic Society, the Boston Natural History Society, the Rhode Island and New Jersey Historical Societies, the Franklin Institute, and the Publishers of the Medical News, Philadelphia.

The Committee to which was referred "a Map representing five types of topography," reported in favor of its publication in the Transactions, which, on motion, was so ordered.

Dr. Le Conte exhibited a piece of lithographic stone found in Northern Alabama, similar to the hardest or blue variety of German stone, from a quarry used by the Rebel Government for printing its treasury notes, specimens of which accompanied the stone.